Bonneville Power Administration
Fish and Wildlife Program FY98 Watershed Proposal Form

Section 1. General administrative information

Title # Enhance Habitat For Spring Chinook, Summer Steelhead, And Bull Trout.

Bonneville project number, if an ongoing project 9401805

Business name of agency, institution or organization requesting funding
Asotin County Conservation District

Business acronym (if appropriate) ACCD

Proposal contact person or principal investigator:

Name	Bradley J. Johnson
Mailing Address	725 6th St, Suite 102
City, ST Zip	Clarkston, WA 99403
Phone	(509)758-8012
Fax	(509)758-7533
Email address	accd@valint.net

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
N/A			

NPPC Program Measure Number(s) which this project addresses.

7.7B3

NMFS Biological Opinion Number(s) which this project addresses.

Informal Consultation on Asotin Creek Model Watershed 1997 Streambank Stabilization and Fish Habitat Improvement Projects with a Not Likely to Adversely Affect Determination.

Other planning document references.

Asotin Creek Model Watershed Plan, Snake River Salmon Recovery Plan, W.A. Depaftment of Fish and Wildlife draft Wild Salmonid Recovery Plan

Subbasin.

Asotin Creek, tributary of Snake River

Short description.

Enhance fish habitat, reduce water temperatures, erosion and sedimentation, improve and re-establish riparian vegetation, and promote cooperation and agreement between landowners and resource agencies within the Asotin Creek watershed

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Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish	X	Construction	X	Watershed
*	Resident fish	*	O & M		Biodiversity/genetics
*	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research	*	Ecosystems
	Climate	*	Monitoring/eval.		Flow/survival
	Other		Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	*	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

Model Watershed Plan, Implementation, Enhancement Projects

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9202602	Implement stern Washington Model Watershed Plans	Technical Lead to Implement Plan

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Reduce Stream Temperatures	a	Tree/Shrub Plantings 10,000 ft
		b	Riparian Fencing 15,000 ft
		c	< width, > depth of stream by installing habitat structures
2	Increase Pools w/Large Woody Debris	a	Install Pool forming habitat structures. 120 total vortex rock weirs, rock barbs, rock vanes, meander reconstruction, root wads, logs and brush
		b	Designs of structures will incorportate large woody debris
3	Reduce Sedimentation of spawning gravels	a	Install Upland Practices to help reduce soil erosion sediment basins 12 ea. terraces 10,000 ft. grass/ford plantings 1,000 acres
		b	Streambank stabilization projects that incorportate fish habitat
4	Reduce fecal coliform levels	a	Riparian fencing (see above)
		b	Filter or buffer strips between fence and creek

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	1/1998	12/1998	5.00%
2	1/1998	12/1998	40.00%
3	1/1998	12/1998	45.00%
4	1/1998	12/1998	10.00%
			TOTAL 100.00%

Schedule constraints.

Improving and maintaining critical habitat requires cooperation and long-term commitments between landowners, state and federal agencies for watershed management. Cooperators need to know that long-term cost-share assistance will be available.

Completion date.

We have just completed our second year of fish habitat installation in the Asotin Creek Watershed. Funding for at least five years was identified during the planning phase. 2003 or later.

Section 5. Budget

FY99 budget by line item

Item	Note	FY98
Personnel		
Fringe benefits		
Supplies, materials, non-expendable property		
Operations & maintenance		$15,000
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		
Indirect costs		
Subcontracts	Fish Habitat Implementation Projects	$96,000
Other	Upland Management Projects	$82,000
TOTAL		$193,000

Outyear costs

Outyear costs	FY99	FY00	FY01	FY02
Total budget	$243,000	$243,000	$243,000	$243,000
O&M as % of total	6.00%	6.00%	6.00%	6.00%

Section 6. Abstract

The Asotin Creek Model Watershed Plan which was printed in 1995, was the first to be developed in Washington which specifically addressed habitat protection and restoration for salmonids. The plan is consistent with the habitat elements of the "Strategy for Salmon" and the draft "Wild Salmonid Policy."

Our mission as stated in the Asotin Creek Model Watershed Plan is to: "complete and implement an integrated plan for the Asotin Creek watershed which will meet

landowner objectives and agency acceptance, in order to protect and enhance all resource bases with concern for long-term sustainability."

High stream temperatures, lack of resting and rearing pools containing large woody debris, sediment depostion in spawning gravels, and elevated fecal coliform counts were problems identified during the watershed analysis and are addressed in the Plan. The Plan provides a framework for improving the overall health of the Asotin Creek watershed, with an emphases on improving fish habitat. Improved habitat quality will allow greater juvenile and adult survival at each freshwater lifestage and can result in more offspring surviving to begin migration to the ocean.

Improving and maintaining critical habitat requires cooperation and long-term commitment between landowners, state and federal agencies to undertake comprehensive watershed management. The District just completed the second year of habitat installation and adaptive management measures are being implemented.

HOBO temperature meters are deployed during the spring and record in-stream temperatures on a daily basis. ISCO sediment samplers are currently taking samples at four locations in the watershed daily for total suspended solids. Grab samples for fecal coliforms, ammonia, nitrate, total nitrogen and total phosphorous are being collected by WSU staff on a monthly basis. Discharge, snorkling surveys, habitat assesments, pebble counts, pool size and frequency and before and after pictures at project sites (photo documentation) are also underway. The District has intered into an agreement with WSU lab to analysis the data and quarterly reports will be sent to funding authorities.

Section 7. Project description

a. Technical and/or scientific background.

In 1992, the Washington State Conservation Commission entered into a contract with the Bonneville Power Administration (BPA) for the development and implementation of three model watershed plans in southeastern Washington. The Asotin Creek Model Watershed Plan was one of the three selected. This project is specific to the Asotin Creek Watershed. Spring chinook salmon were listed as "threatened" under the Endangered Species Act in May of 1992 and steelhead were listed as "threatened" under ESA in the watershed in October of 1997.

The Asotin Creek Model Watershed was selected because it has been impacted by human activities and catastrophic natural events such as floods and droughts. Spring chinook salmon, summer steelhead, bulltrout, and resident trout use these waters. High stream temperatures, lack of quality resting and rearing pools contatining large woody debris, sediment deposition in spawning gravels, and elevated fecal coliform levels were problems identified during the watershed analysis and are addressed in the Plan.

The Asotin County Conservation District was named the lead agency because of our strong connection with local landowners, and our ability to implement on-the-ground solutions for fish habitat concerns.

The local NRCS, as well as the Spokane State Office Watershed Planning Team, provide in-kind services in the form of technical assistance, design, and project construction inspection for the District. A Landowner Steering Committee which represents the views and needs of the local community and a Technical Advisory Committee which included representatives from the affected private, state, and federal agencies and organizations were established. The two committees worked closely together to identify local needs and concerns and they are listed in the Asotin Creek Watershed Plan which was printed in 1995.

The District receives funding either through the Washington State Conservation Commission or directly from BPA to help fund the Watershed Technical Lead Position and help improve water quality and fish habitat within Asotin Creek. The last two years the District has received $37,000 per year for the Technical Lead Position and $150,000 per year for water quality and fish habitat enhancement projects. During the same time we have received funding from the Washington State Conservation Commission for general district operation and funding for cost-sharing upland conservation practices to help reduce erosion. As stated earlier the District also receives in-kind from NRCS, Washington Department of Fish and Wildlife, U.S. Forest Service, Salmon Corps, and the Asotin County Commissioners. The "grass root system" of the District is the key to installing structures on private and public propery that can help improve water quality and fish habitat within Asotin Creek watershed.

b. Proposal objectives.

Project Reports

- Quarterly reports submitted to BPA
- Model Watershed Quarterly Newsletters
- Asotin County Conservation District Newsletter
- Technical Project Designs for each project
- Biological Assessment for projects submitted to BPA and NMFS
- NEPA Checklist submitted to BPA
- Project Completion reports to BPA
- WSU Quarterly Monitoring report to District and BPA
- Asotin Creek Model Watershed Plan completed in 1995
- Resource invetories of the watershed

Asotin Creek Model Watershed Objectives

- Reduce stream temperatures through the use of bio-engineering, riparian plantings, and riparian fencing projects. The District will be receiving 6,000 dormant stock

plantings for the watershed in the spring of 1998. Local students, volunteers, and Salmon Corps will be asked to help.

- In-stream structures provide the following components: resting and rearing pools with large woody debris, interstial spaces between boulders, enhanced width to depth ratio, added meanders, added complex fish habitat, and sorted gravel below the structure for suitable spawning habitat. The District has identified areas in the watershed for 1998 projects. We are anticipating just installing fish habitat structures. Landowner concerns have been addressed and their cooperation is good, resulting in fish habitat on private property. We will also be working on Forest Service and Deparment of Fish and Wildlife property. Cost-share will be used on all projects with landowner cooperation being the key for success.
- Reduce sedimentation of spawning gravels through riparian fencing, well and spring developments for off-stream watering devices, installing upland management practices such as terraces, sediment basins, filter strips, grassed waterways, and forestland planting. The District has a very popular upland cost-share program in progress. Funding from the Washington State Conservation Commission is being applied for and projects are identified on a daily basis by NRCS and landowners.
- Reduce fecal coliform levels through riparian fencing, filter strips, and off-stream watering devices. Riparian fencing projects have had some resistence on Asotin Creek. Landowners are starting to see the results of fencing and understand that something needs to be done in the riparian area. Most of the grazing done directly on the Creek is either during the fall or short periods in the spring. The District had some success this fall with fencing projects and six sites were fenced. The off-stream watering devices are very popular, the only constrait is available time to design and implement. We finished one this fall with three more identified. Cost-share is used on all of these practices.

The District promotes a holistic ecosystem for watershed protection and restoration. Coordinating, planning, designing, and implementing habitat restoration projects in T&E chinook and steelhead streams are no easy task. Improving and maintaining critical habitat requires cooperation and long-term commitments between landowners, state and federal agencies to undertake comprehensive watershed management. Improving habitat quality will allow greater juvenile and adult survival at each freshwater lifestage and can result in more offspring surviving to begin migration to the ocean.

c. Rationale and significance to Regional Programs.

The rationale behind the ongoing Eastern Washington Model Watersheds and the Implementation funding is based on the goals found in the 1994 Fish and Wildlife Program, part 7.7b, “Model Watersheds.” Specifically this section speaks of the “bottom up” planning done by the model watershed technical leads as we prepare our watershed plans for implementation. It also speaks of implementation of priority on-the-ground actions that address key limiting factors for salmon and steelhead, which has been ongoing for the past few years.

Implementation of the Asotin Creek Model Watershed Plans goals and objectives will effectively address habitat enhancement for ESA listed weak populations without appreciable adversely affecting watershed biological diversity. In fact the goals of the Plan emphasize total watershed health.

The dynamic structure of the Plan relies on adaptive management techniques as restoration progresses with the ultimate outcome being watershed health at a self-sustaining level for all ESA listed species.

d. Project history

The District has received funding from BPA to install demonstration projects. From October of 1992 through September of 1997, BPA has provided $554,410.00 to the Washington State Conservation Commission to support the Implementation of the Eastern Washington Model Watershed Plans. The contract # for those funds is 9202602.

Under the Commission funding, the Asotin County Conservation District has received an average of $37,000.00 over the last two years for the Technical Lead Position. These funds help pay for salary, benefits, office supplies and travel to meetings and conventions. 20% of the Lead's salary is paid either from the District or Commission funds, which helps offset the total cost asked of BPA.

Over that same period, the District has received $318,000 directly from BPA for water quality and habitat enhancement projects. The contract # for those funds is 9401800. The District received $193,000.00 in 1997 for water quality and in-stream habitat enhancement projects. **Project Reports have been submitted titled "BPA Channel and Fish Habitat Improvements Completed on Asotin Creek."** $53,920.00 spent on fish habitat and fencing projects on eleven different sites on Asotin Creek. $26,723.00 spent on sixty-two sediment basin cleanouts in Asotin County, with most of the dirt being hauled back into the fields at the landowners expense. $7,492.00 spent on sediment basin and terrace construction on cropland within the watershed. $1,703.00 spent on an exclusion riparian fence on Forest Service land in the watershed. The remaining funds were allocated in 1997 and the projects will be completed in the spring, summer, and fall of 1998. Funding for 1998 habitat projects are uncertain at this time.

The District also received funding in 1996 directly from BPA for 96 Early Action Funding in the amount of $125,000.00. These funds were used for in-stream channel and fish habitat enhancement projects and also water quality monitoring equipment for the District. **Project Reports have been submitted titled "Brief Evaluation of 7 BPA "Early Action" Streambank/Habitat Projects on Asotin Creek."**

The District has also received cost-share funding from the Washington State Conservation Commission for upland and riparian management practices. The District installed fish habita structures at Headgate Park on Asotin Creek as a demonstration project. It included the structures and a pre and post monitoring of the site. **A Progress Report has**

been submitted titled "Installation of Fish Habitat Improvement Structures in the Headgate Park Reach of Asotin Creek, Washington and Resulting Changes in Pool Availability and Abundance of Juvenile Steelhead." This project was the only fish habitat enhancement project with Commission funding and it was completed in the fall of 1996 and the cost was $21,000.00 for the installation of structures and the pre and post monitoring and evaluation.

Below are a list of structures installed within the county using Washington State Conservation Commission funds to help off-set some of the landowners cost.

Cost-Share practices implemented during 1995-1997 Biennium:

Cross Fencing	3,754.00 ft.
Grass Seeding	304.10 ac
Livestock Pipeline	400.00 ft
Pasture/Hayland Planting	235.90 ac
Pond Construction	2383.00 cy
Sediment Basin Construction	14,818.58 cy
Sediment Basin Reconstruction	1250.00 cy
Sediment Basin Cleanout	333.00 cy
Spring Development	1 ea
Stripcropping	1103.60 ac
Terrace Cleanout	18,715.00 ft
Terrace Construction	52,908.00 ft
Terrace Reconstruction	145,662.00 ft
Tree Planting	12,240.00 trees
Waterway Construction	986.50 ft
Windbreak	2 ea
Windbreak Restoration	1 ea

e. Methods.

Specific tasks associated with the implementation of objectives as identified in Section 4 will be faciliated by the Model Watershed Lead through the Model Watershed Organizational Structure. The structures include: Landowner Steering Committees, Technical Advisory Committees, Interdisciplinary Teams, Landowners, and Public input. These committees and groups identify, assess, design, and prioritize projects, however it is the Technical Lead who facilitate the coordination of project implementation. The Lead also insure projects reflect the goals and objectives as identified in the Model Watershed Plan. He/she oversees the project plan development, biological assessment development and submission, landowner acceptance and agreement, secures contract resources, and coordinates volunteers to insure implementation of habitat enhancement projects.

Long-term habitat enhancement retention is expected as a result of Plan and project installation. Monitoring and evaluation assessments will provide guidance for structural enhancement through the adaptive management process.

The Watershed Plan identifies factors for monitoring and evaluation. These factors are the basis for pre and post construction assessments for water quality and habitat enhancement projects. NRCS staff evaluates and monitors projects for structural performance integrity.

f. Facilities and equipment.

The District obtains help from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) through a working agreement called the "Memorandum of Understanding." Other USDA agencies currently working with the District under such an agreement are: U.S. Forest Service, U.S. Department of Interior, Cooperative Extension Service, U.S. Corps of Army Engineers, Farm Service Agency, and the Asotin County Commissioners.

The NRCS provides the District with in-kind services including: technical assistance, office space, office equipment, phone service, and vehicle use. The total match exceeds $27,000.00 per year.

The District currently uses the internet and has two computers and a copier machine that can be used by the NRCS Staff. The working relationships between the District and USDA Agencies are in great working order.

Currently we are not identifying any equipment that needs to be purchased with project funds. The District has the ability to use any field or office equipment to get the job finished in a proficent manner.

g. References.

Asotin Creek Model Watershed Plan 1995. Asotin County, Washington.

Section 8. Relationships to other projects

The Eastern Model Watershed Project relates directly to this proposal. The funding for the Model Watershed Leads assits implementation and administration of the Model Watershed Plans. Without this grant the District administration and implementation of the Plan would be hard to complete and the trust and creditbility gained would be lost. Local cooperators need to know that long-term funding that was mentioned when this project began, will continue to be available. The idea of locally led decisions as a "grass roots system" would be hard to sell to cooperators who bought into an idea and then have the funding withdrawn.

The District receives in-kind from the NRCS in the form of technical support, office space, office equipment, phone service, and vehicle use. We also receive basic funding support from the Washington State Conservation Commission and upland conservation funding for cost-share practices on private property.

Section 9. Key personnel

Bradley J. Johnson
117 Maple St.
Clarkston, WA 99403
(509)751-9685

Education

Dickinson State University, Dickinson, North Dakota
Bachelor of Science degree in Biology, May 1992

Experience

Asotin County Conservation District July 1996-Present
Clarkston, WA

District Manager. Responsible for performing management functions and administration of District and Model Watershed Programs established by the Asotin County Conservation District.

Washington Department of Fish and Wildlife March 1996-July 1996
Clarkston, WA

Technician. Responsible for checking fishermen and vouchering for the squawfish reward program.

University of Idaho October 1992-March 1995
Moscow, ID

Fisheries Technician. Responsible for organizing and supervising crews for data collection. Experience in gill netting, electrofishing, beach seining and data collection on the spawning ecology of brown trout and kokanee. Established and operated juvenile and fry migration traps. Organized entered and graphed data.

Expertise

Self-motivated individual with enthusiasm and interest in fisheries habitat enhancement and restoration. Flexible to changes in the working environment with the ability to establish productive working relationships with people at all levels. We have completed two years of habitat enhancement and restoration projects on Asotin Creek, Washington. Three reports have documented project success and are included in the BPA Application. As a technician for the University of Idaho under David H. Bennett, Relationship Between Substrate Composition and Salmonid Incubation Success, Evaluation of Substrate Quality for Incubation of Fall Chinook Salmon Embryos in the

Snake River, Kokanee Spawning Ecology, the Snake River Sturgeon Project, the Lower Granite Squawfish And Smallmouth Bass Predation Project, Lower Granite Fish Larval Project, and temperature monitoring were some of my project involvements. The fisheries experience that I have received coupled with my background in agriculture and working relations with people have enabled me to work closely with local landowners on issues regarding enhancement and restoration of fisheries habitat within Asotin County.

Richard D. Stauty

P.O. Box 671

Pomeroy, Washington 99347
(509) 843-1998 (W) (509) 843-3950

Professional Experience

USDA Natural Resources Conservation Service 9/94 to Present
Pomeroy, Washington

Soil Conservationist

Responsible for planning, design and installation of riparian and fish habitat improvement structures in the three Model Watersheds of Southeastern Washington. Assist conservation districts and landowners in securing local permits and in-agency consultations.

USDA Natural Resources Conservation Service 7/91 to 9/94
Vancouver, Washington

Soil Conservationist

Coordinated County and NRCS efforts to reduce phosphorous loading into LacCamas Lake. Primary responsibilities included: farm planning, public information programs and developing both on-farm and a regional composting plan for small farm operations.

USDA Natural Resources Conservation Service 1/83 to 7/91
Moscow, Idaho

Soil Conservationist

Completed conservation planning on land uses. Performed construction inspection on federally funded projects. Served as GIS coordinator for national test site of database spatial information system interface.

USDA Natural Resources Conservation Service 7/81 to 1/83
Hailey, Idaho

Soil Conservationist

Completed resource plans on irrigated cropland and assisted in range inventory and planning. Performed construction inspection on multi-user irrigation system installations and on community recreation facilities.

E d u c a t i o n

Vermilion Community College Ely, Minnesota 1976 to 1978
AA Environmental Interpretation

University of Minnesota, Duluth Duluth, Minnesota 1978 to 1980
Additional course work in Earth Science and Education

University of Idaho *Moscow, Idaho* 1986 to 1990
BS Crop Science and Plant Protection

R e l e v a n t N R C S T r a i n i n g

Erosion and Sediment Control Systems
Soil Bioengineering
Hydraulics for Technicians
Environmental Concerns in Conservation Planning and Application
Forest Water Quality
Cultural Resource Training

Barry Southerland
NRCS State Office
Watershed Planning Team

Professional Experience

Soil Conservationist
Provides technical assistance to the District. Serves as lead when Determining alternatives for stream restoration projects.

Range Conservationist 3 years
Soil Conservationist 5 years
Supervisory Soil Conservationist 2 years
Fluvial Geomorphologist 2 years

Degrees

BS Range/Soils
Utah State University

MPA Natural Resources Management
Brigham Young University

Expertise

Resource data collection that is used for alternative development for watershed Treatment. Emphasis on fluvial geomorphic stream restoration. Works as Member of an interdisciplinary stream team in Washington

Publications

Co-author of several watershed plans, river basin studies

Mark Schuller
NRCS State Office
Watershed Planning Team

Professional Experience

State Fisheries Biologist

Provides technical assistance to the District. Helps decide what measures should be taken to improve habitat; help design, implement and monitor habitat improvement projects.

Washington Department of Fisheries 1974-1993

Regional Habitat Manager

Degrees

Boeing Mechanical Drafting Course 1968

BS Fisheries Science with minor in Wildlife 1972
University of Washington

Steelhead Life History Study in Graduate School at U of W 1974

Expertise

Working with landowners and volunteers to improve fish habitat.

Publications

Co-author of Asotin Creek Watershed Plan

"Cemeteries as Floral and Faunal Preserves"
Pacific Search Magazine, 1970

Section 10. Information/technology transfer

The District produces a quarterly model watershed newsletter with a circulation to watershed residents of approximately 1,150 copies that relates information regarding the watershed and projects that have been implemented. The District is very active with the local schools and provides hands-on workshops and tours to the local students. During 1997, the District held a bank stabilization workshop that involved two local high schools (approximately 50 students). The students also participated in habitat assessments, discharge evaluation and riparian plantings on Asotin Creek, tours of local fish hatcheries and a tour of the Nez Perce Tribes' Sturgeon Project. The District has provided four classrooms with aquariums to raise trout eggs. Tours have been provided for legislators, landowners and agency representatives. The local television and newspaper media has been utilized to promote the activities in the watershed. Articles about the projects in the watershed have also appeared in BPA's newsletters the Circuit and the Journal.